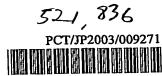


## ATENT COOPERATION TREATY



# **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference OP1605-PCT	FOR FURTHER ACTI	ON	See Form PCT/IPEA/416			
International application No.	International filing date (	day/month/year)	Priority date (day/month/year)			
PCT/JP2003/009271	22 July 2003 (22		19 July 2002 (19.07.2002)			
International Patent Classification (IPC) or n B01D 53/44, A61L 9/14, 9/16, E	ational classification and I	PC				
Applicant	UEGAKI,					
This report is the international preli- Authority under Article 35 and tran	minary examination report smitted to the applicant acc	, established by this cording to Article 3	s International Preliminary Examining 6.			
2. This REPORT consists of a total of		cluding this cover	sheet.			
3. This report is also accompanied by	ANNEXES, comprising:		shoote on follows:			
a. (sent to the applicant and	d to the International Bure	au) a total of	sheets, as follows:			
and/or sheets con	ntaining rectifications auth instructions).	orized by this Autr	peen amended and are the basis of this report pority (see Rule 70.16 and Section 607 of the			
beyond the disci	losure in the international a	application as illed	ty considers contain an amendment that goes, as indicated in item 4 of Box No. I and the			
b. (sent to the Internation readable form only, as	onal Bureau only) a to , contain indicated in the Supplement		ype and number of electronic carrier(s)) ing and/or tables related thereto, in computer to Sequence Listing (see Section 802 of the			
Administrative Instructi	ions).					
4. This report contains indications re		ıs:				
Box No. I Basis of the	report					
Box No. II Priority			21. 1.114.			
Box No. III Non-establi	shment of opinion with reg	gard to novelty, inve	entive step and industrial applicability			
Box No. IV Lack of unit	ty of invention					
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
	cuments cited					
	ects in the international app					
Box No. VIII Certain obs	servations on the internation	nal application				
Date of submission of the demand		Date of completion	n of this report			
02 February 2004 (02	.02.2004)		26 May 2004 (26.05.2004)			
Name and mailing address of the IPEA/J	P	Authorized office	r			
Facsimile No.		Telephone No.				



Internacial application No.

PCT/JP2003/009271

Box No. I	[ Basis	of the report
otherw	rise indicate	e language, this report is based on the international application in the language in which it was filed, unless ed under this item.
	This repor	t is based on translations from the original language into the following language, anguage of a translation furnished for the purpose of:
		national search (under Rules 12.3 and 23.1(b))
		ication of the international application (under Rule 12.4)
	inter	national preliminary examination (under Rules 55.2 and/or 55.3)
furnisi and a	hed to the i re not anne	the elements of the international application, this report is based on (replacement sheets which have been receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" exed to this report):
$\boxtimes$		ational application as originally filed/furnished
	the descrip	otion: , as originally filed/furnished
ı	pages	received by this Authority on
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	the claims	: , as originally filed/furnished
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	a sequenc	ce listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
}		
3.	The amer	adments have resulted in the cancellation of:
	[ ] the	description, pages
1		claims, Nos.
i		e drawings, sheets/figs
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		y table(s) related to sequence listing (specify):
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4.	made, si (Rule 70  the the	ort has been established as if (some of) the amendments annexed to this report and listed below had not been ince they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box 1.2(c)).  de description, pages
* If it	tem 4 appli	es, some or all of those sheets may be marked "superseded."

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V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
	citations and explanations supporting such statement

<del></del>			<del></del>	
1. Statement				
Novelty (N)		Claims	3-7, 9-11, 14-15, 17-26	_ YES
		Claims	1-2, 8, 12-13, 16	_ NO
Inventive ste	p (IS)	Claims	5-6, 9, 11, 18-20, 22-26	YES
		Claims	1-4, 7-8, 10, 12-17, 21	_ NO
Industrial ap	plicability (IA)	Claims	1-26	_ YES
		Claims		NO

#### 2. Citations and explanations

#### Documents

- Document 1: JP 61-259729 A (Shiraimatsu Shinyaku Kabushiki Kaisha), 18 November 1986
- Document 2: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 32400/1988 (Laid-open No. 137719/1989)
  (Kimoto Co., Ltd.), 20 September 1989
- Document 3: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 165044/1988 (Laid-open No. 86548/1990) (Toshiba Corp.), 9 July 1990
- Document 4: JP 2000-5555 A (Ken'ichi Ozaki, Sadazo Hayashi, Hitoshi Masutani), 11 January 2000
- Document 5: JP 6-47250 A (Trinity Industrial Corp.), 22 February 1994
- Document 6: JP 6-262018 A (Turbon-Tunzini Klimatechnik GmbH), 20 September 1994
- Document 7: JP 51-101041 A (Kabushiki Kaisha Osame Kogyo), 7 September 1976

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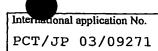
Explanation Claim 1

Claim 1 lacks novelty and does not involve an inventive step in the light of documents 1 to 4 cited in the international search report.

Namely, document 1 discloses an odor-eliminating device provided with a gas introduction port (1) (corresponding to an "air suction opening" in the invention described in claim 1; same format hereinafter), a sprayer (5) ("odor-eliminating agent supply device") for spraying an odor-eliminating liquid, a gas exhaust port (2) ("air discharge opening"), an air exhaust fan (3) ("air flow-forming device"), a filter (8) onto which the odor-eliminating agent solution droplets or mist adhere, and an odor-eliminating agent carrier filter (7) ("filter").

Further, document 2 discloses a deodorizing device provided with a gas suction intake opening (2) (corresponding to an "air suction opening" in the invention described in claim 1; same format hereinafter), a particle generator (16) ("odor-eliminating agent supply device") for spraying an odor-eliminating agent that has been formed into particulate matter, an air discharge opening ("air discharge opening"), a blower (12) ("air flow-forming means"), and a filter (7) ("filter").

Moreover, document 3 (see especially the description, page 1, line 16 to page 3, line 7, and fig. 2) discloses an odor-eliminating device provided with a suction intake port (3) (corresponding to an "air suction opening" in the invention described in claim 1; same format hereinafter), an odor-eliminating agent-spraying device (5) ("odor-eliminating agent supply device"), an exhaust port (6) ("air discharge opening"), a fan (7) ("air flow-forming means"), and an odor-eliminating agent filter (11) ("filter") for removing the odor-eliminating



agent so that no odor-eliminating agent is released outside the device, said filter comprising a porous material.

Meanwhile, document 4 discloses an odor-removing device wherein a deodorizing agent spray chamber (6) (the connection part of the spray chamber (6) corresponds to the "air suction opening" in the invention described in claim 1; same format hereinafter) is disposed in the air-exhaust system of a coating booth, and said device is provided with a deodorizing agent spray nozzle (8) ("odor-eliminating supply device"), a final outlet port (B) ("air discharge opening"), exhaust blowers (4, 17) ("air flow-forming means"), a plurality of filters (11) and a plurality of deodorizing filters (14) ("filter").

Therefore, the invention described in claim 1 is disclosed in documents 1 to 4, and thus, lacks novelty and does not involve an inventive step.

#### Claim 2

Claim 2 lacks novelty in the light of document 4.

Namely, the odor-removing device disclosed in
document 4 is one wherein a deodorizing agent spray
chamber (6) is disposed in the air-exhaust system of a
coating booth, and the air suction opening of the odorremoving device can be said to open into the booth main
body.

Further, claim 2 does not involve an inventive step in the light of document 1 and document 5.

A person skilled in the art could easily conceive of applying the odor-eliminating device disclosed in document 1 as the exhaust air treatment device for a coating booth disclosed in document 5.

Claims 3 and 4, claim 17

Claims 3 and 4 and claim 17 do not involve an inventive step in the light of document 1 and document 5.

Namely, document 5 discloses an exhaust air treatment device for a coating booth, wherein a moving device for conveying the collection surfaces of a pair of folding screen-shaped filters that can be moved forward/backward alternately is provided, and a feature wherein a regenerated filter (namely, a filter having a collection surface with a high collection efficiency) is moved to an exhaust flow passageway. Thus, when applying an odor-eliminating device disclosed in the documents to the treatment of the exhaust air from a coating booth, a person skilled in the art could easily conceive of providing a filter-moving device, and regenerating a filter and moving it.

Claims 3 and 7

Claims 3 and 7 do not involve an inventive step in the light of document 1 and document 6.

Namely, document 6 (see especially the claims, paragraphs [0014] and [0015], and fig. 1) discloses a device for separating foreign matter from a gaseous medium, said device being provided with a rotatable filter element (8) comprising a ring-shaped filter bed filled with carbon particles, characterized in that when separating foreign matter in gaseous or vapor phase, a liquid is sprayed on the medium caused to flow into the device, and the gas that adsorbs or vapor that condenses due to the effect of the liquid being sprayed is adsorbed onto the surface of the carbon particles comprising the filter, and is thereby removed. The odor-eliminating device disclosed in document 1 and the separating device disclosed in document 6 share the common feature of spraying a gas to be treated with a liquid treatment agent

and passing it through a filter, and thus, a person skilled in the art could easily conceive of using the liquid odor-eliminating agent disclosed in document 1 as the liquid treatment agent sprayed on the medium caused to flow into the separating device disclosed in document 6.

#### Claim 8

Claim 8 lacks novelty and does not involve an inventive step in the light of document 2.

Document 2 discloses a feature wherein the number of odor-eliminating agent spray particles is regulated according to the concentration of an odor component.

#### Claim 10

Claim 10 does not involve an inventive step in the light of document 2.

Document 2 discloses a feature wherein in order to regulate the number of odor-eliminating agent spray particles supplied according to the concentration of an odor component, regulation of an ultrasound wave generator for generating the spray particles and regulation of the gas flow rate are controlled in an interlocking manner using a damper (8). Controlling the gas flow rate using a blower instead of a damper (8) is merely the substitution of a conventional means.

#### Claim 12

Claim 12 lacks novelty and does not involve an inventive step in the light of document 4.

Document 4 (see especially paragraphs [0006] and [0007]) discloses activated charcoal filters and the like and a variety of chemical adhesion filters (chemical filters) as raw materials for use as a deodorizing filter (14).

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Claim 13

Claim 13 lacks novelty and does not involve an inventive step in the light of document 3.

Document 3 (see especially the description, page 1, line 16 to page 3, line 7, and fig. 2) discloses an odoreliminating device having a main body lower part (1a) provided with a suction intake port (3), an odoreliminating agent-spraying device (5), and an odoreliminating agent filter (11) arranged in an opening in a partition, and a main body upper part (1b) provided with a fan (7) and an exhaust port (6) and connected to the inside of the main body lower part (1a) via the filter (11), and the main body lower part (1a) and the main body upper part (1b) correspond respectively to the first housing unit and the second housing unit in the invention described in claim 13.

#### Claim 14

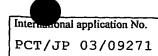
Claim 14 does not involve an inventive step in the light of document 3.

When performance of a treatment in a single stage is insufficient, designing a device in multiple stages so that the same treatment is performed a plurality of times is merely standard practice in device design.

#### Claim 15

Claim 15 does not involve an inventive step in the light of document 3 and document 7.

Document 7 discloses a coating device having an exhaust gas-purifying device, wherein recirculation of an exhaust gas that passes through a purifying process and then exits a droplet-removing means (8) comprising an eliminator or a filter provides the same effect as using a plurality of stages of a dust-collecting means. This recirculation of a treated exhaust gas is known in the



art, and thus, a person skilled in the art could, as needed, appropriately adapt the odor-eliminating device disclosed in document 3 so that the air exhausted from the exhaust port (6) is recirculated.

#### Claim 16

Claim 16 lacks novelty and does not involve an inventive step in the light of document 1.

Document 1 discloses a feature wherein an odoreliminating agent which is a dry distillation component of a plant of the Theaceae family eliminates odors by directly trapping an odor component.

#### Claim 21

Claim 21 does not involve an inventive step in the light of document 1 and document 2.

Document 2 discloses a feature wherein the number of odor-eliminating agent spray particles supplied is regulated according to the concentration of an odor component, and thus, a person skilled in the art could easily conceive of using an odor-eliminating agent having an effect of capturing an odor component by adhesion, as disclosed in document 1, in the odor-eliminating method disclosed in document 2.

#### Claims 5 and 6, 9, 18 to 20, and 22 to 26

The inventions described in claims 5 and 6, 9, 18 to 20, and 22 to 26 are not disclosed in any of the documents cited in the international search report, and thus, are novel and involve an inventive step. In particular, none of the documents discloses a feature wherein the amount of odor-eliminating agent and odorous substance collected using a collection surface is calculated, and the amount the collection surface is moved is changed according to the calculated collected amount, or a feature wherein the

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amount of an odor-eliminating agent that should be supplied is calculated according to the operating status of a coating device, and the amount of odor-eliminating agent supplied is regulated according to the calculated supply amount, or a feature wherein the amount of an odor-eliminating agent and an odorous substance contained in a gas is calculated, and the amount of gas that should be drawn into a filter is regulated according to the calculated amount of the odor-eliminating agent and the odorous substance.